EA-03-009

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U. S. Nuclear Regulatory Commission
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Washington, DC 20555-0001

Subject: **Palo Verde Nuclear Generating Station (PVNGS)**
Unit 2
Docket No. STN 50-529
Special Report 2-SR-2003-001
Report of Boron Deposit at Control Element Drive Mechanism Vent

Dear Sirs:

Attached please find Special Report 2-SR-2003-001 prepared and submitted by Arizona Public Service (APS) pursuant to NRC Order EA-03-009 (Order), dated February 11, 2003. Section IV.D of the Order requires licensees to perform certain visual inspections to identify potential boric acid leaks from pressure-retaining components above the RPV head. Section IV.E of the Order requires licensees to submit reports detailing the inspection results within sixty (60) days after returning plants to operation.

This special report details the results of visual inspections performed at PVNGS Unit 2 subsequent to an un-planned reactor trip on July 29, 2003. The visual inspections were preformed in accordance with the Boric Acid Corrosion Prevention Program which APS implements to identify and prevent boric acid corrosion of reactor pressure boundary components.

In accordance with 10 CFR 50.4(b)(1), copies of this report are being provided to the Region IV Regional Office and the Palo Verde NRC Senior Resident Inspector.

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No commitments are being made to the NRC by this letter. If you have questions regarding this submittal, please contact Dan Marks, Section Leader, Compliance, at (623) 393-6492.

Sincerely,

David D Mauldin

CDM/RAS/ras

Attachment

cc: B. S. Mallett, Region IV Administrator
M. B. Fields, PVNGS Project Manager
N. L. Salgado, Sr. Resident Inspector
Assistant General Counsel for Materials Litigation and Enforcement Rulemaking and Adjudication Staff

Attachment
Palo Verde Nuclear Generating Station Unit 2
Special Report No. 2-SR-2003-001
Boron Deposit Found at Control Element Drive Mechanism Vent
Docket No. STN 50-529

Reporting Requirement:

The NRC Order EA-03-009, "Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors," (accession number ML0303804700) dated February 11, 2003, Section IV.D requires that certain visual inspections be performed to identify potential boric acid leaks from pressure-retaining components above the reactor pressure vessel head.

Additionally, Section IV.E of the NRC Order requires that licensees submit reports detailing the inspection results performed per section IV.D within sixty (60) days after returning the plant to operation if a leak or boron deposit was found during the inspection.

Background:

On July 29, 2003, Palo Verde Unit 2 was manually tripped due to reduced reactor coolant system pressure (reference Event Notification #40033). Subsequent to the reactor trip, routine visual inspections were performed in accordance with the Boric Acid Corrosion Prevention Program (APS procedure 70TI-9ZC01). APS implemented the Boric Acid Corrosion Prevention Program to prevent boric acid corrosion of reactor pressure boundary components and to ensure the requirements contained in USNRC Generic Letter No. 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants" are met.

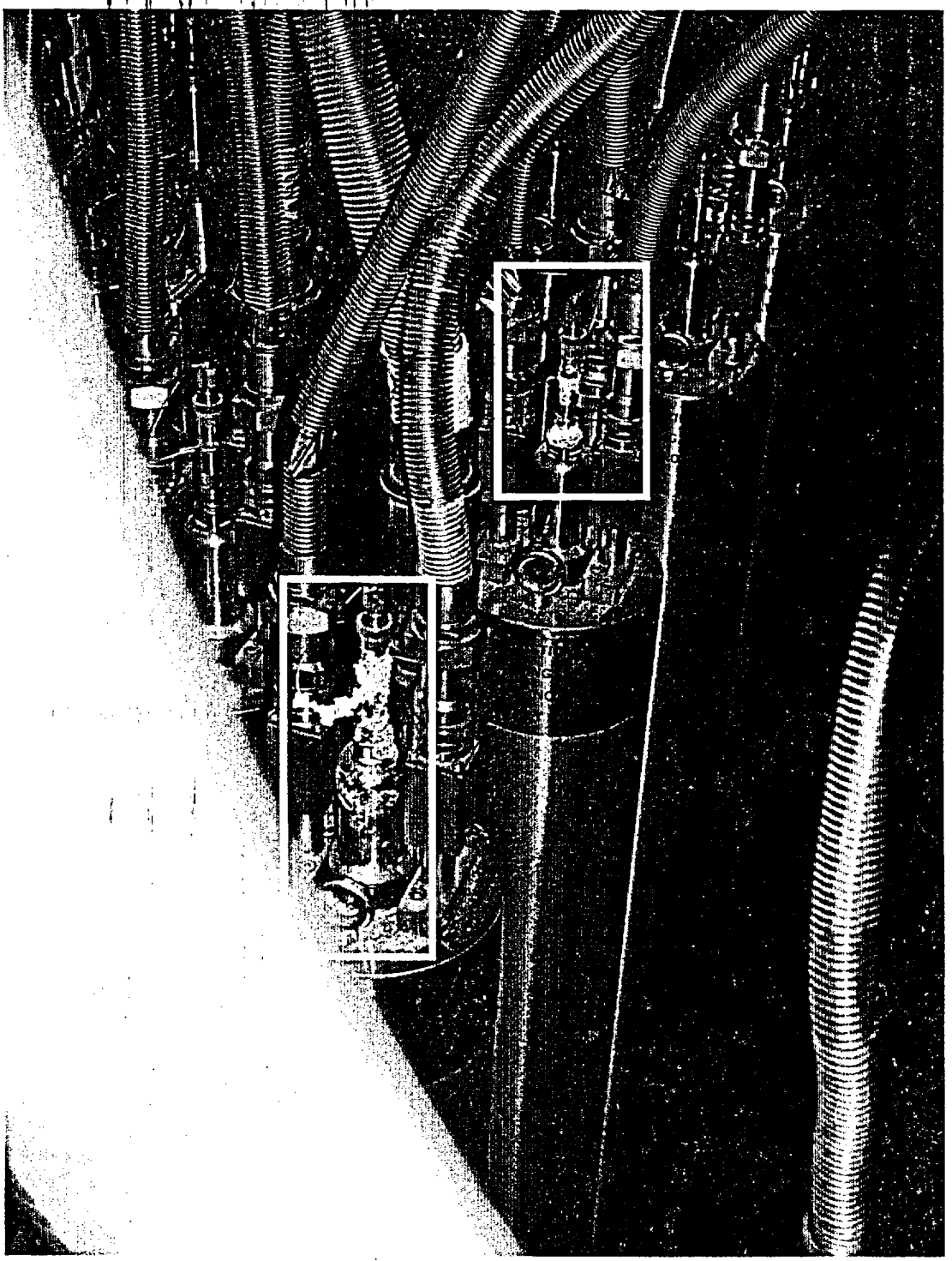
Report Detailing Inspection Results:

During boric acid walk-downs on July 30, 2003, three Unit 2 boric acid residue sites were identified above the RPV head. The sites were located on the Versa-Vents for control element drive mechanisms (CEDM) nos. 7, 8, and 85. These sites exhibited no evidence of being active leaks and the boric acid residue did not contact the RPV head or related insulation. The source of the boric acid residue was most likely the vent ball / seating surface interface of the Versa-Vent.

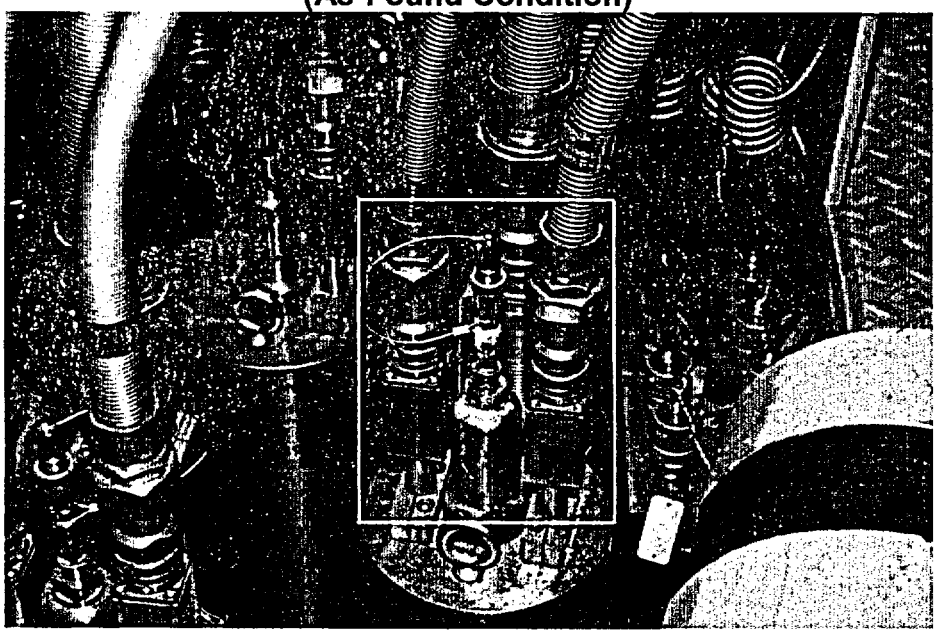
Versa-Vents 7 & 8 will be cleaned and reworked during the next refueling outage (reference Work Order nos.: 2630537, 2630539). Versa-Vent 85 was cleaned and will be reworked during the next refueling outage (reference Work Order no.: 2630543). The next Unit 2 refueling outage is scheduled to begin September 27, 2003.

Unit 2 was returned to operation (Mode 1) on July 31, 2003.

Palo Verde Nuclear Generating Station Unit 2
Special Report No. 2-SR-2003-001
Boron Deposit Found at Control Element Drive Mechanism Vents 7 & 8
Docket No. STN 50-529
(As-Found / As-Left Condition)



Palo Verde Nuclear Generating Station Unit 2
Special Report No. 2-SR-2003-001
Boron Deposit Found at Control Element Drive Mechanism Vents 85
Docket No. STN 50-529
(As-Found Condition)



(As-Left Condition)